Water and Power

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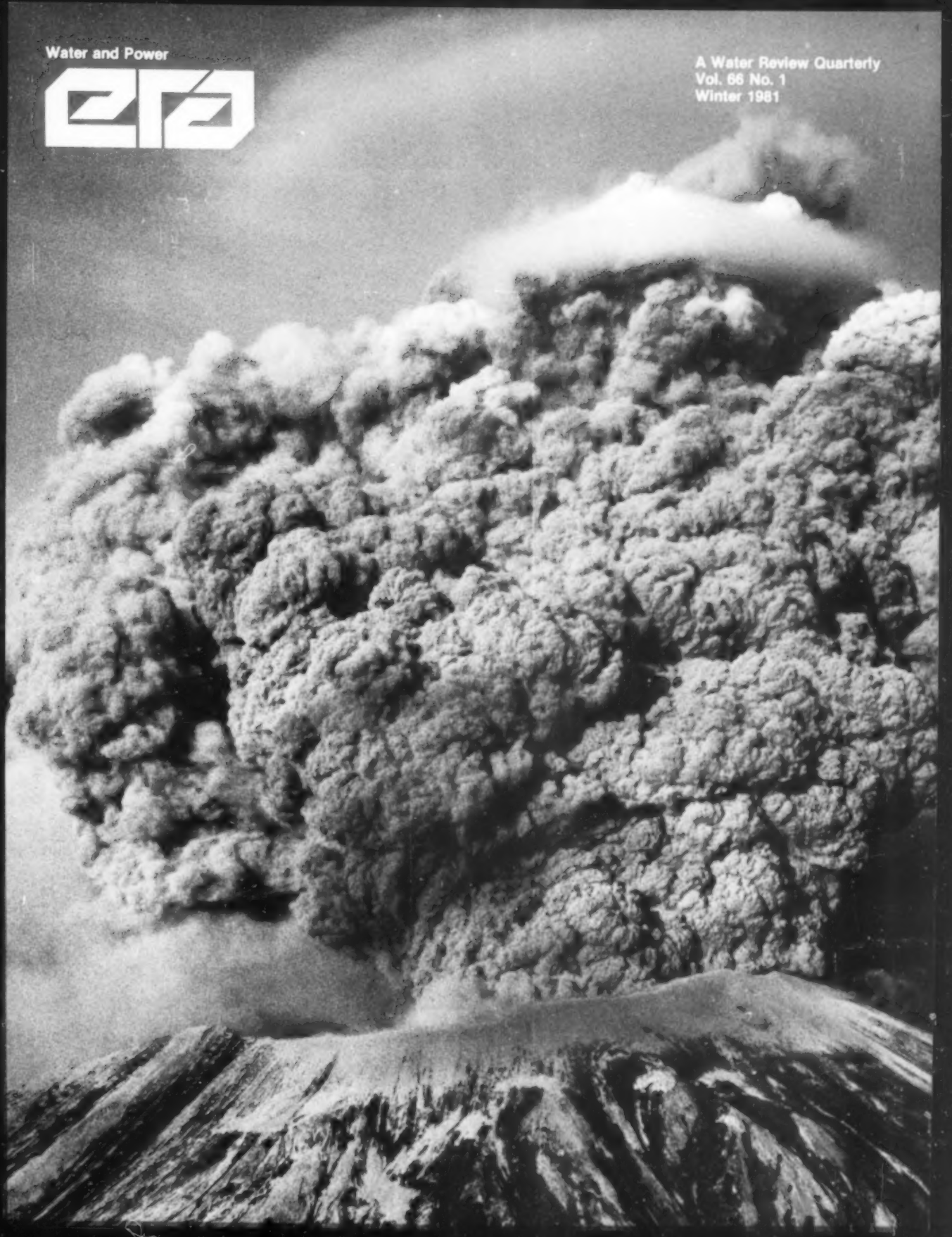

Water and Power

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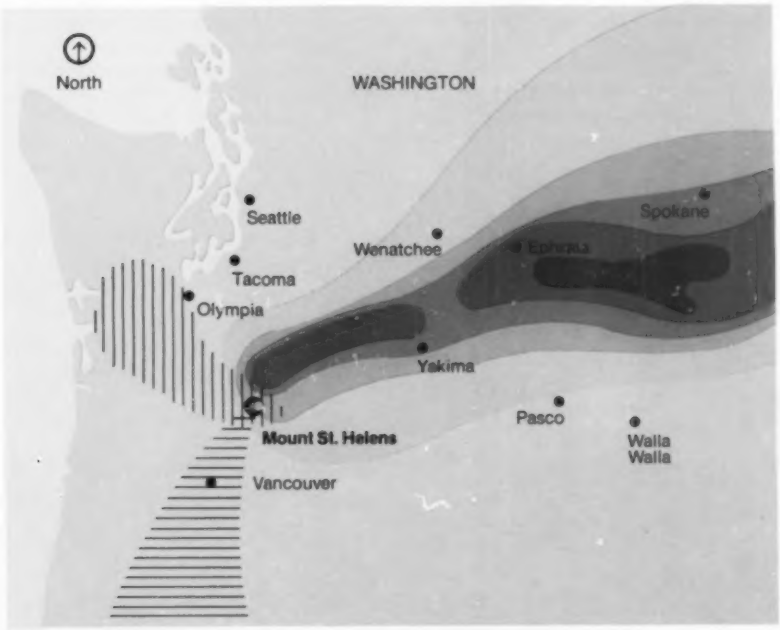
As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering the wisest use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historical places, and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to assure that their development is in the best interests of all our people. The Department also has a major responsibility for American Indian reservation communities and for people who live in Island Territories under U.S. administration.

Mount St. Helens... The Aftermath of Ash Sunday

by Carol Prochaska



Ash Fall Distribution:

- May 18 eruption
- May 25 eruption
- June 12 eruption

Volcanic ash rose into the sky some 63,000 feet and was carried by winds to the northeast.

- Trace to 1/4"
- 1/4" to 1/2"
- 1/2" to 1"
- 1" to 2"
- 2" to 3"

On May 18, 1980, after rumbling and belching smoke and ash for several weeks, Mount St. Helens in Washington State erupted with such force that trees in a 150-square-mile area looked like a child's game of "pick-up sticks" that had been dropped. Volcanic ash and rock were blown 63,000 feet into the air and were carried northeast by 20-30-mile-an-hour winds.

Carol Prochaska is the Public Affairs Officer for the Columbia Basin Project, Ephrata, Washington.

Photography by Michael L. and Ginny Shinn, Denver, Colorado; Russell Wentworth family, Quincy, Washington; Ken Whitmire Associates, Yakima, Washington; *Columbia Basin Herald,* Moses Lake, Washington; *Wenatchee World,* Wenatchee, Washington; Ken Haisch Associates, Vancouver, Washington; Soil Conservation Service, U.S. Department of Agriculture.

Before May 18, the summit of the mountain towered 8,677 feet above sea level. The first blast and the two eruptions that followed, literally blew the top off and lowered the summit to 8,400 feet.

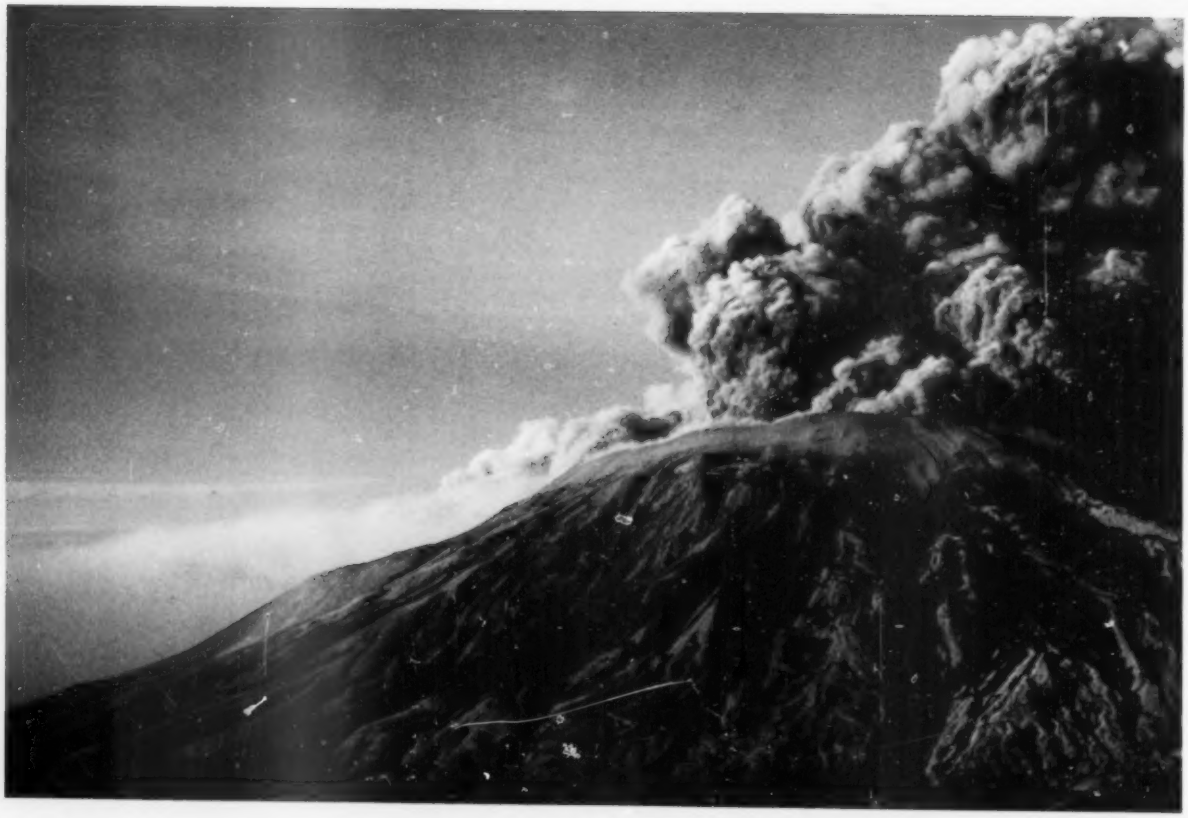
The immediate effects of the eruption were apparent. The wildlife and vegetation that survived the intitial blast were caught in the steaming mud flows that poured down the mountain and clogged rivers, lakes and drainages. Cities such as Yakima, Ephrata and Moses Lake were covered with volcanic ash fallout. Crops in the heaviest fallout area were nearly destroyed.

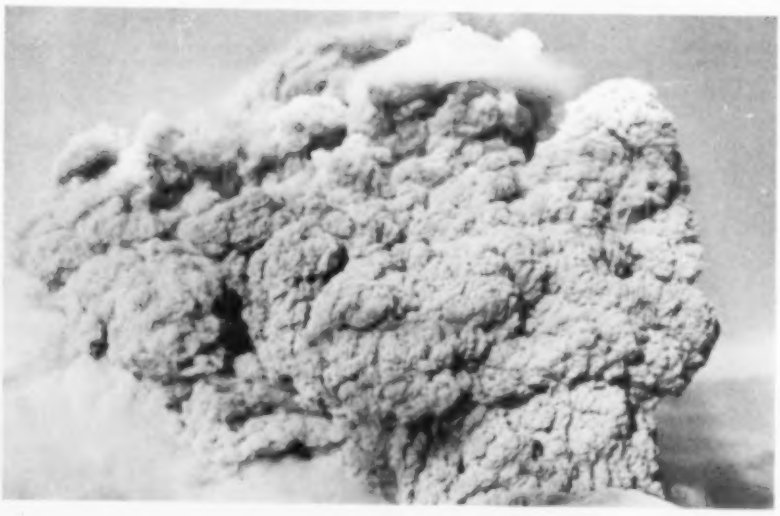
However, the total, long-range impact of Mount St. Helens' eruptions cannot be fully assessed at this time. For example, Water and Power personnel on the Yakima Project are concerned about the effects of the ash on the soil, especially the soil's ability to provide adequate drainage to grow crops. Additional information will become available from a study being conducted by the Soil Conservation Service in the Mount St. Helens' area regarding soil conditions and regrowth of vegetative cover.

Surveillance in the areas most affected has been stepped up so that precautionary measures can be taken if conditions warrant. Water and Power is in close contact with the National Weather Service and with U.S. Geological Survey to obtain advance information regarding any potentially heavy weather or possible eruptions.

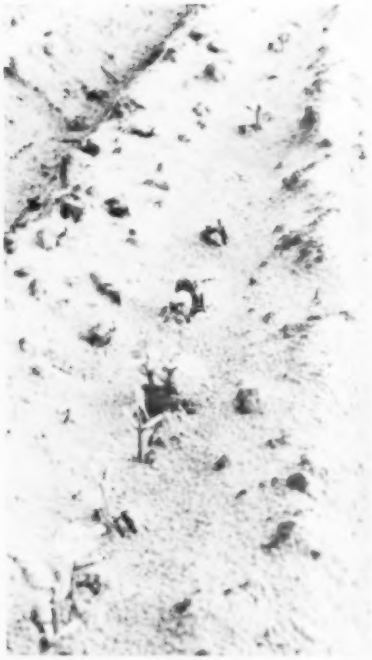
Congress has authorized emergency relief funds for those experiencing substantial losses. And, relief is also available to irrigation districts and others contracting with the Water and Power Resources Service through deferment of construction charges in cases where payment will create an undue burden. The deferred amount will have to be repaid within a two-year period unless this would require payments exceeding 100 percent of the estimated payment capacity for the contracting entity or block.

The following eight pages attempt to tell the story of the Mount St. Helens' eruption and damage, and how the people in the most affected areas tried to cope and then to clean up.





Many people in eastern Washington State first became aware that something was amiss when they looked into the sky and saw a dark cloud approaching. As it neared, it looked like billions of puffballs. By noon, the heavy mantle had cut visibility to zero.



In the affected areas, farmers forecast varying degrees of damage. The amount of damage appeared to be partially related to the amount of fallout and to the growth stage: seedlings fared poorly; more mature plants seemed to suffer less.

Cities and towns as far east as Spokane were covered with a layer of gritty, gray ash. Yakima received more than an inch, and two-to-three times as much blanketed the Moses Lake area.

Volcanic ash weighed an estimated 100 lbs. per cubic foot. Homeowners everywhere spent hours sweeping roofs to prevent cave-ins.

Getting rid of a cubic mile of volcanic debris turned out to be no small job. In Moses Lake, the ash was first bladed into the center of paved streets and later hauled to low-lying areas to use as fill material.

Automobile air cleaners clogged. Police and others who had to drive installed special air intakes to keep their cars running.

Jewel of the Colorado... The Last Facet is Completed

by Harry H. Gilleland

About mid-morning on October 15, 1956, President Dwight D. Eisenhower pushed a button in the Oval Office of the White House, detonating a charge on a canyon wall 2,100 miles away in northern Arizona. The blast hailed the start of construction of Glen Canyon Dam...a dam destined to become the second highest concrete arch dam in the Nation.

Planning for the dam had begun many years before. Glen Canyon, where the muddy Colorado River flowed from southern Utah on its way to the Grand Canyon, had been seriously considered as a potential damsite in the early 1920's. The idea was rejected largely because of its remoteness from existing power markets. In the 1940's, however, as the concept for the huge Colorado River Storage Project took shape, it became apparent that a large dam and reservoir in Glen Canyon would be key elements in the overall plan.

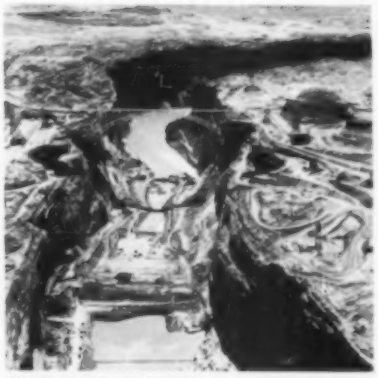
Harry H. Gilleland was the Special Services Officer at Glen Canyon Dam and has lived in Page, Arizona for the past 20 years.

Photography by Bud Rusho, Upper Colorado Region, Salt Lake City, Utah; F. Finch, Mel Davis, A. E. Turner, Stan Rasmussen and Vern Jetley, all formerly with the Upper Colorado Region.

In September 1946, Engineer Vaud Larson and his small crew of specialists boated upstream from Lees Ferry into Glen Canyon to examine potential damsites. The site favored in the 1920's was Mile 4 (four miles upstream from Lees Ferry), but it was soon bypassed because of badly fractured canyon walls and an unstable foundation. At Mile 15.3, however, the walls were high and sound as well as close to a good source of sand and rock for concrete aggregate. By 1948 after extensive investigation, the Mile 15.3 site was selected and was recommended as the prime site to build the dam.

While awaiting congressional approval of the project, detailed design work was underway in the Denver offices of the Water and Power Resources Service. Engineering estimates were being studied. A scale model of the dam was constructed in the labs, and every conceivable test was run. Preparation for construction bids on the dam and powerplant was steadily progressing. Finally, in April 1956, Congress approved the Colorado River Storage Project, including construction of Glen Canyon Dam.

Wasting no time, Water and Power Resources Service (then known as the Bureau of Reclamation), picked a tough retired Marine colonel, L. F. "Lem" Wylie, to be Project Construction Engineer. In July 1956 from a boat on the river, Lem first saw the site where the dam would be built. He set up the project headquarters in an old schoolhouse in Kanab, Utah, and went to work.



Glen Canyon construction, 1959.

Page, 1959.

There in Kanab on April 11, 1957, the sealed bids for the prime contract to build the dam were opened. Merritt, Chapman and Scott Corporation (MCS), New York City, was the winner with a bid of $105 million.

As construction workers from around the country began to arrive, housetrailers were moved in by the score; a new town was in the making. The terrain was hilly, windswept sand and rock, and it took considerable faith and imagination to believe that Page, Arizona, as it stands today, could grow out of such a barren desert.

By spring a diesel-fired generator was set up in the camp, providing electricity for those modern-day pioneers. Catherine Pulsifer, the first postmaster of the town, still remembers being located some distance from the generator. "By the time the electricity reached our trailer," she said, "the power had been drained so much, there was hardly enough juice to get my iron hot."

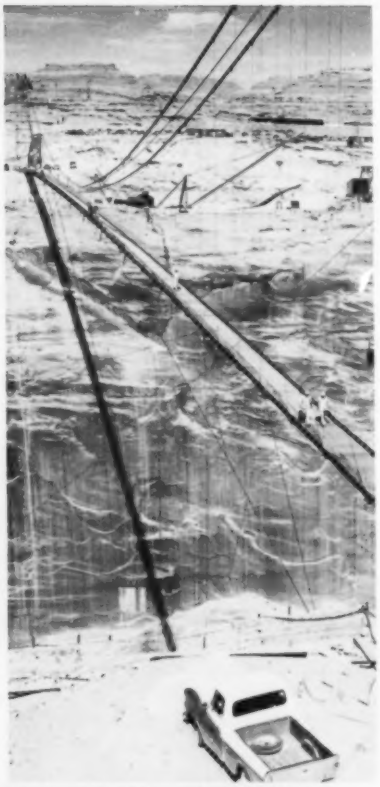
Page, built on a mesa east of the damsite, was named after the Honorable John C. Page...a man who stands high in the annals of western history. He was an enthusiastic supporter of western water development, and served as the first Commissioner of the Reclamation Service (a forerunner of the Water and Power Resources Service) in Theodore Roosevelt's administration.

Although the town of Page grew on the east side of the canyon, MCS chose to set up shop on the west side. At their option, the company built a wire mesh footbridge with cable handholds across Glen Canyon about 200 yards north of the actual damsite. While the bridge cut down commuter time for the workers, it spanned the canyon 700 feet above the river and taxed the nerves of those who had to cross it!

A feeling of closeness and friendliness prevailed as people shared their hardships and difficulties. When the workers' children needed schools, Water and Power worked closely with the new community and with county and state authorities from Flagstaff and Phoenix to set up the Page Accommodation Schools, forerunner of the present Unified School District.

The first three school buildings were warehouses provided by Water and Power. The buildings served more than one purpose. While the churches were being built, the buildings served as school on weekdays and church on Sundays.

In those days, entertainment was a rare and welcome event in Page. A home talent show, for instance, became a reality when a group of interested individuals got together and staged a vaudeville show in the mess hall. They rigged tarpaulins for curtains, pictures for backdrops, and put a variety show together never seen before nor equaled since.



The wire mesh footbridge constructed by MCS; it was more than 700 feet to the river below.

Aerial of Page and surrounding area in 1958; the Glen Canyon damsite is in the upper left.

As Glen Canyon Dam grew, the town prospered. Many changes came to pass — some good, some bad. None of the oldtimers will ever forget the crippling strike that shut down dam construction on July 1, 1959, for six months. There was a mass exodus of people; some came back, others moved on. Businesses closed and growth came to a standstill. The town seemed to die. The strike was finally settled just before Christmas. The remaining workers and their families celebrated. Work resumed on January 2, 1960.

Resumption of work and return of the people created a new era in Page. The town and the dam were growing again.

The canyon became a beehive of activity with an army of workers swarming the damsite. Excavation of 127 feet of earth below the river level was necessary to reach a solid foundation. By June 1960, the bedrock floor was ready for concrete placement, and a big ceremony was planned. The Governors of Arizona, Colorado and Utah were on hand when the Secretary of the Interior Stewart L. Udall pulled the lanyard to dump the first bucket of concrete on June 17, 1960.

For three years, concrete poured continually day and night, until the massive structure rose 710 feet above the canyon bedrock. Enough concrete was poured into Glen Canyon Dam to pave a highway from Phoenix to Chicago four inches thick and four lanes wide.

On January 21, 1963, the west side diversion tunnel was closed. The murky river slowly filled the canyon and brought the water up 41 feet to the bottom of the east diversion tunnel.

Since Glen Canyon, like most canyons, is most narrow at its bottom, Lake Powell rose rapidly during the initial years of filling. Then, it slowed considerably as the water overflowed the canyon itself and lapped against more distant cliffs and buttes.

In 1963, when water was first stored behind Glen Canyon Dam, an agreement called the "Filling Criteria" was reached between the Upper and Lower Basin States. The agreement stated that the Upper Basin States — those upstream from Lees Ferry, Arizona — had to pay the Lower Basin States for lost power generation revenues while water was being stored in Lake Powell rather than flowing downriver to Lake Mead, behind Hoover Dam.

At first, the revenue payment was relatively low; but when the energy crisis hit in the late 1970's, the price of electricity rose dramatically. The cost of reimbursing the Lower Basin States for lost power revenue became very expensive. In 1979 alone, the cost to the Upper Basin States was over $11 million. Altogether, the 17-year filling period cost almost $34 million.

But the "Filling Criteria" did establish a cutoff, when Lake Powell reached its full elevation.

The above average runoff in 1978, 1979 and 1980 accelerated Lake Powell's filling. Still, it took many veteran Lake Powell watchers by surprise to suddenly learn that the lake was actually going to reach its full elevation of 3,700 feet above sea level. Therefore, June 22, 1980, was a day of some rejoicing among Upper Basin water officials and others who understood the significance. There would be no more "Filling Criteria" payments.

Lake Powell, which has been called the "Jewel of the Colorado" because of its spectacular scenery, can store more than twice the annual flow of the Colorado River.

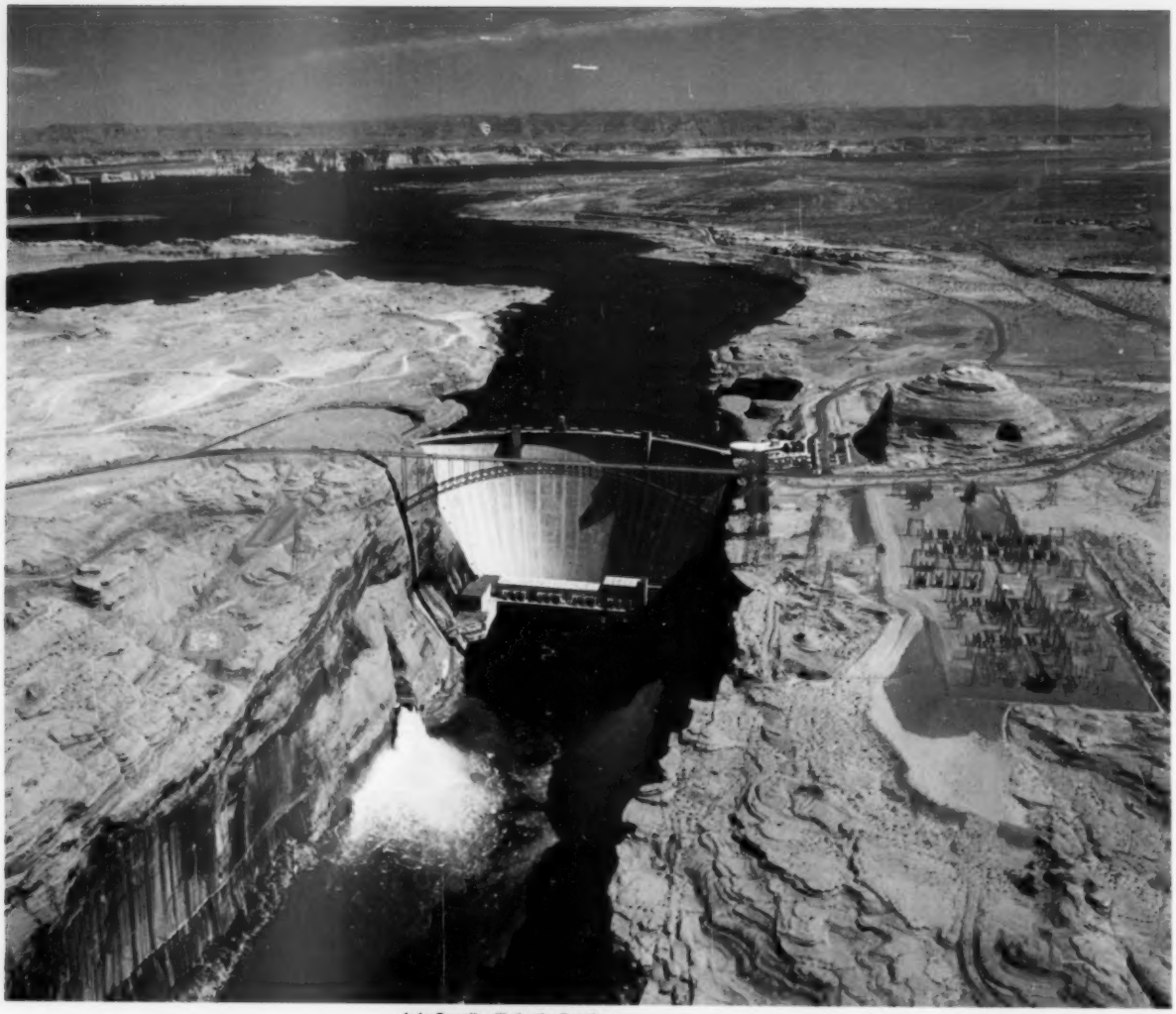
The stored water in a reservoir like Lake Powell is valuable for several reasons. The increased depth of water creates more water pressure or "head" on turbines, producing more power generation per unit of water volume. By storing large amounts of water, Lake Powell acts as a giant storage battery. Furthermore, the large amount of stored water serves as insurance against a drought.

The reservoir also provides regulated control of the river. Regulated control has two major advantages: water availability, which is so precious in the West; and electricity production, which is necessary to help pay for projects of this magnitude.

The lake, when full, impounds 27 million acre-feet (an acre-foot of water is that amount sufficient to cover one acre of land one foot deep, or 325,900 gallons). The dam backs up the Colorado River 186 miles and has 1,960 miles of shoreline.

The water, crystal clear as it is released through the penstocks, has turned the turbine-generators to produce $340 million in electricity sales since Glen Canyon first produced power on September 4,

Rainbow Bridge was inaccessible to all but a few hardy hikers before Lake Powell. Today visitors only have to hike about a mile from the boat landing.



Lake Powell spills for the first time.

Lake Powell, jewel of the Colorado.

1964. Except for operation and maintenance expenses, all of the money has been returned to the United States Treasury.

The Page/Lake Powell Chamber of Commerce organized a ceremony on July 11, 1980, to commemorate the filling of Lake Powell. Federal and state dignitaries were invited to the occasion. In his keynote address, the Commissioner of Water and Power R. Keith Higginson invoked the spirit of Lake Powell's namesake, explorer John Wesley Powell, and urged that the Nineteenth Century adventurer's vision be a guide for future water projects.

Higginson said that if Glen Canyon Dam and its powerplant had been built at today's cost, the bill would be more than $800 million, compared with its actual cost of $260 million. He said anyone who opposed water resources development should come to Lake Powell and see what has been accomplished.

"History has shown time and time again that such projects far outstrip the benefits anticipated when those projects are planned," Higginson said. "Lake Powell...will yet bring us more gifts than we are capable of comprehending."

Lake Powell is known for its fishing, swimming, hiking trails, boating and most of all, its spectacular scenery.

The Navajos called artist Claudine Morrow...

"Azdaz Nasilid Nakah" (The Woman Who Carries the Rainbow)

by Harry H. Gilleland

Any child of a Water and Power Resources Service construction engineer can tell you that it is no fun being the new kid in class. The shyness in trying to reply to the question "Where are you from?" or the many school songs that all blend into one forgettable tune are no pleasure.

Claudine Morrow was such a child, a "Bureau Brat." Her father, Norman Keefer, would remind her as they moved to yet another isolated damsite that "the Bureau doesn't build dams at Hollywood and Vine." (Editor's Note: The "Bureau" referred to is the Bureau of Reclamation, now the Water and Power Resources Service.)

Harry H. Gilleland was the Special Services Officer at Glen Canyon Dam and has lived in Page, Arizona for the past 20 years.

Photography by Vern Jetley, formerly in the Upper Colorado Region.

That's fortunate. Otherwise, Claudine might never had painted an old prospector in California, mountains and aspens in the Rockies, or above all discovered a fascination with the Indians of the Southwest. From one project to another, in seven western states and Alaska, she grew up and painted the scenery and people of the western United States. And, most of her adult life before moving back to Page, Claudine lived in Albuquerque, New Mexico. Claudine recalls that she has been drawing or painting as long as she can remember and that "there is hardly an area in the West that I haven't painted and that doesn't feel a little like home."

In 1956 Claudine's father came to northern Arizona as the first engineer assigned to the Glen Canyon Dam Project. This area that was to become Page, Arizona, was then part of the Navajo Indian Reservation. In visiting her parents there, Claudine soon discovered a very strong feeling for and admiration of the Navajo. In the early years she would load her easel, canvas, and paint box into her father's jeep and bounce over a 20-mile dirt road to the Coppermine Trading Post. At Coppermine, the trader, Pat Patterson, would make room for her to paint in his back storeroom by moving some piles of hides and sacks of wool, and then he would help arrange for a model by interpreting for her.

Later, when the Government houses were completed in Page, she painted in a makeshift studio in her father's garage. Each summer Claudine would return to the Coppermine Trading Post to paint. It was during this period that she was given the name by some of the Navajos watching her paint, of "Azdza Nasilid Nakaha" or "The Woman Who Carries the Rainbow."

Claudine's paintings are classic representations of the land and culture of the West. Claudine, who presented her first one-woman show when she was just 14, studied with G. R. Read in Fresno, California, and later with Oden Hullenkramer in Santa Fe, New Mexico. From Hullenkramer she learned a blending-and-painting technique of the old masters that results in the life-like modeling and coloring in her portraits. Claudine's portraits are known for their remarkably expressive eyes which reveal the strength and humanity of her subjects.

Her paintings are much in demand and are found in private collections throughout the United States. In 1975 Claudine became the first American-born woman to have paintings purchased by the Whitney Museum of Western Art in Cody, Wyoming. The Santa Fe Railroad acquired two of her paintings for its collection of southwestern art. In 1978 and again in 1979, it used reproductions of her paintings on its famed Santa Fe calendar. Her works are now shown in Arizona at O'Brien's Art Emporium in Scottsdale, La Galleria in Sedonia, and at Del Webb's Wahweap Lodge overlooking Lake Powell.

Claudine at work in her studio overlooking Lake Powell.

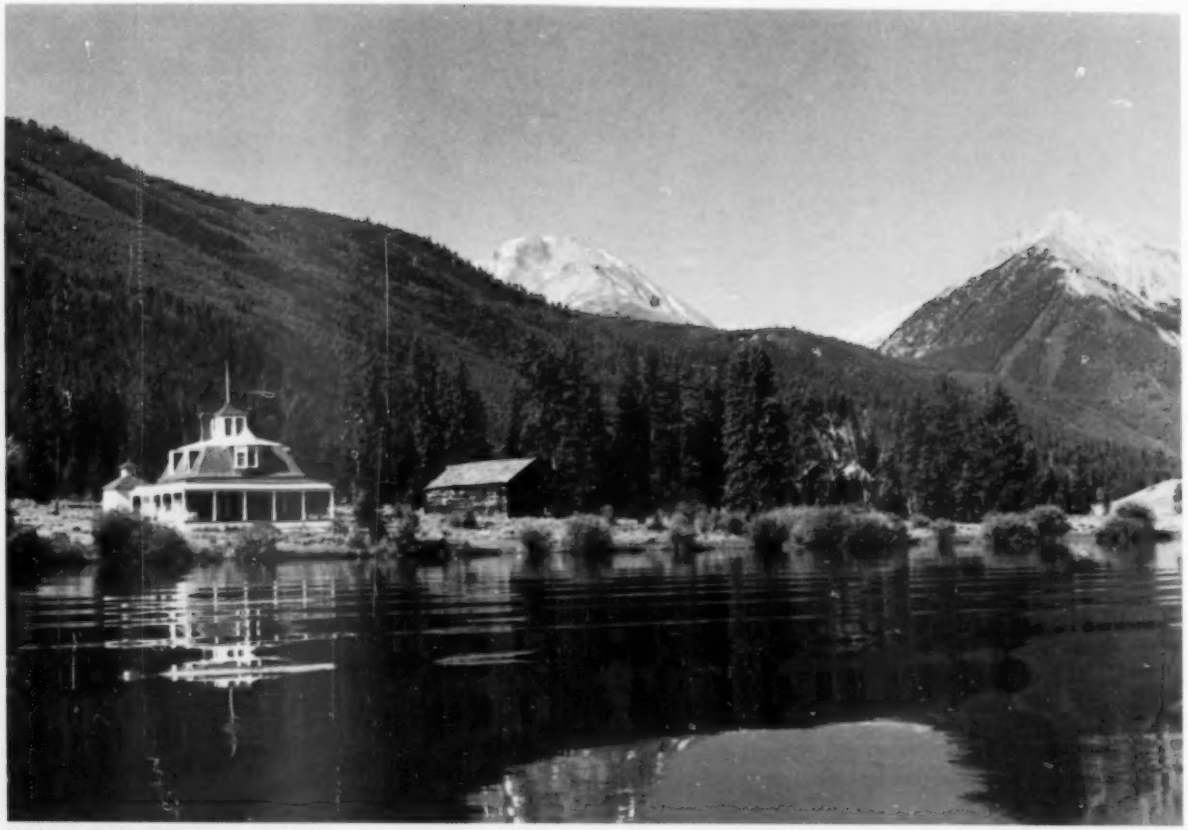
Her paintings show an old masters' technique resulting in life-like coloring.

Claudine's portraits are known for their expressive eyes.

Claudine's paintings are classic presentations of the Southwest and its people.

The Lake Powell area has played a major role in Claudine's life. During the summer of 1974, a collection of her paintings was displayed at the Carl Hayden Visitor Center overlooking Glen Canyon Dam. The exhibit was arranged by Tom Gamble who came to Page as the Power Operations Manager at Glen Canyon. He had seen the traveling photography and art exhibits sponsored by Water and Power, and he wanted something spectacular to put on display at the visitor center. He learned of Claudine's work, and the result was an outstanding collection of art displayed that summer.

The story doesn't end there. Two years later Tom and Claudine were married. The Gambles have built a new home in Page with a magnificent view of beautiful Lake Powell, and from her studio in the new home Claudine continues to create classic art of the Southwest and its people.



Inter-Lakes as it appeared the summer of 1980, before the move to higher ground.

Inter-Laken: The Past With A Future

by Sue Brungard and Carolyn Malaby

Inter-Laken, a hotel complex of the Victorian Era set back a respectful step from the sapphire waters of Twin Lakes, has seen great changes in the last 100 years. High in the Colorado Rockies 15 miles southwest of Leadville, the weathered wood of long deserted buildings bespeaks of a lively past.

In its time Inter-Laken, a name meaning "between the lakes," was a popular vacation resort which echoed with laughter and music. But today, Inter-Laken watches vacationers pass it by in favor of fashionable Aspen on the other side of Independence Pass. Now Twin Lakes and the town that shares the name are better known for quieter recreational opportunities such as camping, fishing and hiking.

Sue Brungard and Carolyn Malaby were Student Writer-Editors from Colorado State University, Fort Collins, in the Public Affairs Center, Denver, Colorado.

Photography by Sue Brungard and Carolyn Malaby; Jim Todd, Lower Missouri Region, Denver; and a special thanks to the Colorado Historical Society.

As early as 1860, miners camped on the shores of Twin Lakes. By 1878, nearby Leadville was crowded with businessmen and miners in search of the good life. Leadville boomed. In its heyday in the 1890's, Inter-Laken was a first-class mountain resort visited by cosmopolitan travelers and Leadville's well-to-do. But, the hotel hasn't seen a guest in many years. Sadly, it's in tumbledown disrepair.

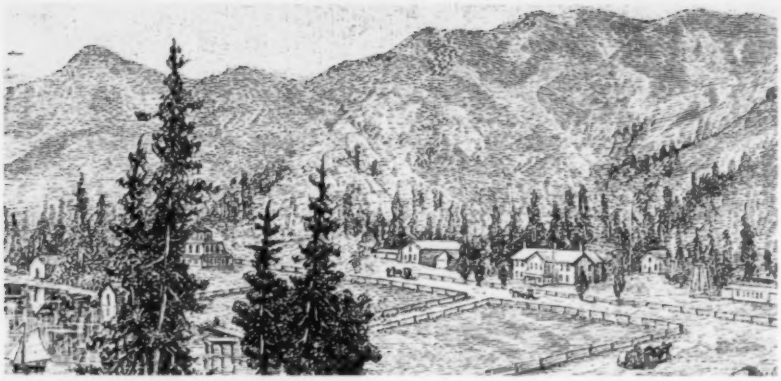
Though the buildings have been neglected, much information on the old resort is still available. The hotel's owner from 1883 to 1899 kept complete records of all his transactions. Yearly inventories, expenses, and correspondence about Inter-Laken were preserved and later donated to the Colorado Historical Society.

In the early 1970's, Inter-Laken once again began to attract attention to its secluded site on the lower lake's southern shore. People who knew the local history feared that if something was not done to insure Inter-Laken's future, it would be flooded if the lakes were filled to maximum capacity. Area residents, Robert L. Rinker and Edward Blair, provided the Colorado Historical Society with information necessary to nominate the Inter-Laken property for inclusion in the National Historic Register. Once the resort was placed on the Register in 1974, the Water and Power Resources Service, the local historical society, the Colorado Historical Society, and the U.S. Forest Service decided upon a plan satisfactory to all parties.

Twin Lakes Storage Reservoir is part of Water and Power's Fryingpan-Arkansas Project which diverts water from the Western Slope, across the Continental Divide to the water-short Arkansas River Valley. The project consists of six storage dams and reservoirs, 17 diversion structures, and nine tunnels.

Twin Lakes is being transformed by the project. With one eye to the past and the other on the future, Water and Power is preserving the historic Inter-Laken site on the south shore while building a modern powerplant on the north. Water and Power has completed a new enlarged dam on the lower lake to increase the reservoir's capacity, and the Mt. Elbert Pumped-Storage Powerplant and Forebay Dam are nearly finished. Now with the employment of a contractor, Water and Power is moving, stabilizing, and preserving the Inter-Laken Resort Complex.

Jeff Kenyon, a Water and Power archeologist who has worked on the Inter-Laken site for the past three years, said it's important to save the complex because, "It's one of the best collections of different styles of log architecture in Colorado. Also, it is historically



The letterhead from stationery at Inter-Laken Hotel.

well-documented and helps us study the development of leisure time activity in the United States."

The hotel was first named Lakeside Resort when it was built in 1879 by John A. Staley. Almost immediately financial difficulties plagued the resort. With the help of financial backers, Staley was able to hold onto the property until 1883. Then, after a series of financial maneuvers, James Viola Dexter bought the hotel and 80 acres for $3,250. Dexter was a man of considerable wealth who had mining interests in Leadville. He took possession of the property in May 1883 and officially renamed the hotel, "Inter-Laken Resort." Later that year, as part of the hotel's improvement program, Dexter purchased land at $3 an acre to build a road around the lower lake.

By the early 1890's, Inter-Laken was a major mountain resort; it included the hotel, frame annex behind the hotel and its accompanying hexagonal privy, billiard parlor, dance pavilion, stable, laundry/employees quarters, blacksmith shop, cow and chicken sheds, ice house, boat house, and the "Dexter Cottage" — an eight-room summer house. Lush Kentucky bluegrass carpeted the grounds of the resort, and a pair of fountains bubbled near the lake's shore. Though Inter-Laken did not compare to the finery of the Broadmoor Hotel in Colorado Springs, the resort did offer its guests a rustic mountain experience. But not as rustic as one might think, the hotel had an indoor "two-seater" plus "hot and cold water baths and a table supplied with the best in the market."

The resort was normally open from May to September, but there are records of sleighrides, sledding and ice-skating. Dexter hired a manager to take care of the stock and buildings during the quiet winter, but Inter-Laken was bustling with activity in the summer months. Most guests took the Denver-Rio Grande or Colorado Midland Railroads to Granite (five miles east of Twin Lakes) and then boarded a side-seated platform wagon to the resort. A boardwalk led from the stage stop to the hotel's porch.

The hotel became a popular retreat for Leadville's businessmen, and many made the trip several times each summer. It was also an attractive spot for unmarried young adults, who were segregated according to sex — ladies in the hotel, gentlemen in the annex. Guests could sit idly on spruce benches and enjoy the vistas, or they could occupy pleasant summer days with games, dancing, picnicking, scenic drives around the lake, walks through the aspens, horseback rides and rides on the "Idlewild," a 50-foot steamboat which operated on the lake for a time. There were also canoes, rowboats and sailboats for fishing and joyrides.

Mining greats, John Campion and August R. Meyer, signed the hotel register. But in spite of their patronage, the resort was never a financial success. The hotel had different leaseholders almost every year, and none were satisfactory. The hotel failed to show a profit, and leaseholders became difficult to find. Management and maintenance were also problems for the resort.

Mary McDonald, the winter caretaker in 1896, wrote to Dexter on October 8, "We are getting along all right and have had the trash all hauled away out of the back yard. I have everything washed and about ready to put away for winter. I must say, I was nearly sick when I seen how everything was left."

In an article about Inter-Laken, Edward Blair, Regional Coordinator for the Colorado Historical Society, referred to that year and wrote, "In 1896, Dexter was forced to lease to a Leadville group called the Mt. Elbert Club. They managed things very poorly; but when they asked to do it again the following summer, he with no other choices, grudgingly agreed adding the following passage in the letter of agreement: 'The Club agrees not to deface or otherwise injure the trees, and rustic seats, *as was done in the season of 1896* and not litter the grounds with broken bottles and other useless crockery, piled up last year to the extent of two full-sized wagon loads.' "

High taxes are not a new American complaint. Dexter felt his tax burden was unfair and wrote a letter to the Lake County Board of Commissioners asking for a reduction. "I put up the money to keep it (Inter-Laken) going; deriving no income thereupon and never did. It has always been a heavy expense for care and taxes." He felt his property had been taxed much too highly by the assessor due to a "matter of friendship to a party having a grudge against me..." Dexter got no sympathy and no reduction of taxes.

Twin Lakes, Col
July 2, 1887

Dearest Josephine,

I have seen much of the Rockies beauty since our departure from Philadelphia, but for daring can compare to these lovely lakes.

We are spending a week here at Inter-Laken, a quaint hotel my brother James recommended. We disembarked at Twin Lakes Station on June 30th and were met by a Mr. Passmore in a perfectly horrid wagon. James, who lives in Leadville and is filled with stories of great riches and daring do, visits the hotel at least once each summer. He has never looked so fine and healthy, and claims it is the result of the clear air.

Inter-Laken compares well to its namesake in Switzerland which Charles and I visited on our honeymoon. I have spent most of my time taking in the mountain vistas from a small bench just west of the hotel. It is a lovely view especially when great dark clouds roll down the mountainsides.

The hotel, nestled in the trees, gives us an exquisite sense of isolation. There are wild roses here, and woodcock blue columbines, but my favorite is a very delicate primrose which blossoms each evening down by the shore. It seems useless to try and describe this place - you really must plan to come here yourself.

Charles caught three trout yesterday and is fishing again today. He has become fast friends with two gentlemen who arrived at the resort the same day we did. They also enjoy fishing. Both gentlemen, Mr. Merino and Mr. Hobbs, are from Leadville, and they have Charles mighty convinced that we should leave our home and join them in a dry goods company venture. Even James supports the plan.

Last Saturday evening the hotel's dance pavillion was filled with music and laughter. The pavillion is shaped like a spider, and the center dome is covered by a bright mural. A small orchestra from Rockville plays each weekend. I never expected entertainment this far from the city.

One of the guests here at the hotel, Mr. Ngaki-Ho, is from Hong Kong and wears his hair in a pigtail. I was a little taken aback when he first showed up at the breakfast table.

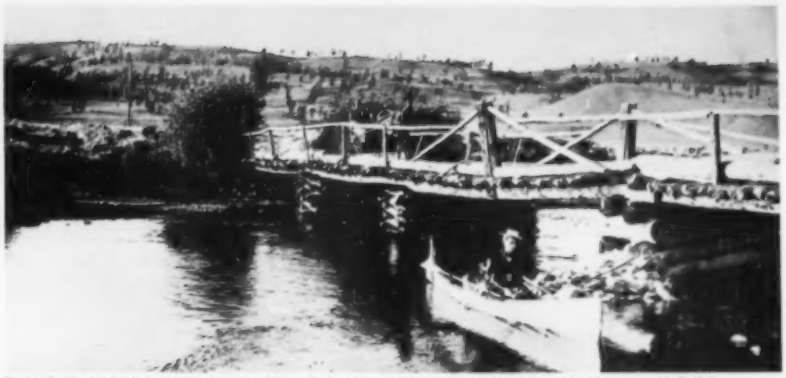
Tomorrow James and I shall take a picnic lunch and ride around the lake. He will meet Charles and drive west to a mountain spot my team found.

We plan to board the train and go back to Colorado Springs tomorrow. I have enjoyed our visit here and am eager to tell you all about it.

Yours with affection,
Amelia

Although this is a fictitious letter, it is based upon historical records from the Inter-Laken Hotel.

"The Dauntless," launched in 1880 at Twin Lakes, was a 30-foot-long Cutter Yacht costing $ 700.



Dexter built a bridge between the upper and lower Twin Lakes so his guests could enjoy scenic drives around the lake.

Inter-Laken Hotel in its heyday.

Another blow came in 1897 when the lower lake was dammed by the Twin Lakes Reservoir Company to provide water for agricultural communities along the Arkansas River east of the Front Range. The original damming of Twin Lakes also dammed the Inter-Laken Hotel. The raised lake level knocked out part of the bridge which was the main access to the hotel and flooded the road, requiring the construction of a new road on the other side of the lake. All of the buildings were left standing, but from that time the hotel became isolated.

Dexter died in May 1899. Edward Blair describes in his article the decline of the hotel: "With his death, Inter-Laken died also. The hotel never again opened as a first-class summer resort. The once proud Inter-Laken Hotel was reduced to boardinghouse status until the eve of World War I. After the War the buildings stood empty, except for an occasional visit by the Dexter heirs. The years flew by, and the buildings weathered, greyed and began to crumble."

Blair hopes to see the resort restored sometime in the future. However, restoration would cost in the neighborhood of $3 million and is no more than a dream at present.

A century ago, guests walked down this hallway to their rooms in the hotel's annex.

Tom Lincoln and Lauri Schwiekhard sift through the debris in the billiard hall, behind the hotel.

The stable is a good example of beautiful, useful log architecture.

Water and Power's current work is what Jeff Kenyon calls a "mothballing of the buildings." The idea is to preserve as much as possible without losing the integrity of the complex. A private company contracted by Water and Power moved the Dexter Cabin and the Inter-Laken Hotel roughly 150 feet to higher ground. The buildings were set on sturdy foundations; shingles and major support beams were replaced; windows and doors were sealed for protection from wildlife, vandals and weather.

The land in front of the old stable was built up to form a berm (similar to a dike) for protection against a 100-year flood. Other work included moving two old graineries farther from the shore and uprighting the hexagonal outhouse.

The contractor did the big jobs after Water and Power's archeologists painstakingly sifted through the complex so that no artifact or clue to the resort's history would be overlooked. Their tools of trade included dustpans, whisk brooms, paint brushes, paper bags, and lots of patience.

In July 1980 the archeologists — Jeff Kenyon, Tom Lincoln, Eddye Jean Steuble, Pat McCoy and Lauri Schwiekhard — worked on the site where the billiard parlor had caved in. The archeologists wanted to excavate and record the site before it was disrupted by the moving of the hotel itself. Among the rubble, they found parts of two billiard tables, a horsehair rug, wooden croquet balls and poker chips. Every artifact was collected, washed, identified and recorded on a computer

Aerial of Inter-Laken Hotel (center), the stable (left), and the rubble of the cow barn (upper left).

Upper and lower Twin Lakes in 1970 before Mt. Elbert Powerplant was built; Inter-Laken is at the extreme left on the shore of the upper lake. Although the bridge over the waterway between the lakes is gone, remnants of the road still exist.

memory bank. Work continued until mid-October, and they plan to return and complete the job next summer when the weather warms up. During the winter, Kenyon and McCoy will analyze information and artifacts from the site.

When working at the complex, the five archeologists camp across the lake from Inter-Laken and take a boat to their worksite every morning. Though the south side of the lake quietly reminisces of the Victorian Era and Inter-Laken, the north side bustles with the Twentieth Century and the new Mt. Elbert Pumped-Storage Powerplant.

Chief Engineer Bill McCormick, manager of the East Slope Field Office, said when the powerplant goes on-line, its two generators will produce 200 megawatts of hydroelectric power. Water falls 460 feet from the forebay dam through two penstocks to power the generators. The penstocks are pipes 15 feet in diameter and 3,000 feet long connecting the forebay dam and Mt. Elbert Pumped-Storage Powerplant. Not enough water is available for the powerplant to operate continuously, but it will generate power in the early evening during the peak demand period. In times of low electrical power demand, the generators will reverse and pump water back up to the forebay dam. The water then can be recycled to insure power for peak demand periods.

Water is stored above the powerplant in the new forebay which Water and Power began filling in November 1980. For the initial filling, water from Turquoise Lake was diverted about 10 miles through the Mt. Elbert conduit into the forebay. The dam, which cannot be seen from the highway, is 92 feet high and holds 11,530 acre-feet of water The forebay is entirely lined with polyethylene buried under 18 inches of earth to keep water from seeping into the ground and disturbing the natural water table.

Located next to Colorado Highway 82, the Mt. Elbert Powerplant will feature a visitor center on its upper floor. The center will provide information on the powerplant's operation and Inter-Laken, as well as overall information on the Fryingpan-Arkansas Project.

As soon as the work at the historic site is completed, the maintenance of the complex will be turned over to the U.S. Forest Service for the recreation area's upkeep.

The total estimated cost of the Fryingpan-Arkansas Project as of October 1980 was $467 million. Up to 1 percent of the project fund may be spent on historical and archeological sites located on property that would be disrupted by Water and Power's work. The cost of preserving the Inter-Laken Resort Complex is less than $500,000, which is much lower than one percent of the above figure.

Water and Power's work at Inter-Laken will prevent further deterioration of the buildings. While complete restoration is not contemplated at this time, the resort may someday be rebuilt and again welcome visitors to the hotel between the lakes.

Where once there was a bubbling fountain, weeds grow in front of the Dexter cottage.

Young Adult Conservation Corps...

BRIDGING THE GAP
by Roberta Ramzy

Since beginning operation in October 1977, the Young Adult Conservation Corps (YACC) has been a useful instrument of the Federal Government's continued efforts to find solutions to the stubborn problems of youth joblessness.

The psychological impact of unemployment upon the lives of its victims is difficult to measure. The effect on the attitudes of young people who are just entering the labor force and cannot find employment may be highly detrimental to the social framework of the Nation. In a continued effort to stymie and reduce the effects of youth unemployment, YACC was created.

The on-going success of the program is demonstrated in large measure by the positive effect it has had upon the lives and careers of its participants. Randy Fuller, a young machinist and tool cribber for a chemical company in Loveland, Colorado, is an example of how the program benefits the young, unemployed person.

Before becoming an enrollee in YACC, Randy, a native of Denver, had a broken employment history — roofing houses, pouring concrete, or restaurant work here and there. Though he later completed a G.E.D., at 17 years of age, Randy had dropped out of high school. Idleness spelled trouble and Randy found himself frequently involved in scraps with the law. A friend told Randy about the YACC program. After a visit to the local employment service, the principal referring agency of the program, Randy applied for and was accepted in YACC.

Randy, now a graduate of YACC in Loveland, commends the program for several reasons. He says, "YACC helped me to get a better understanding of a lot of things.

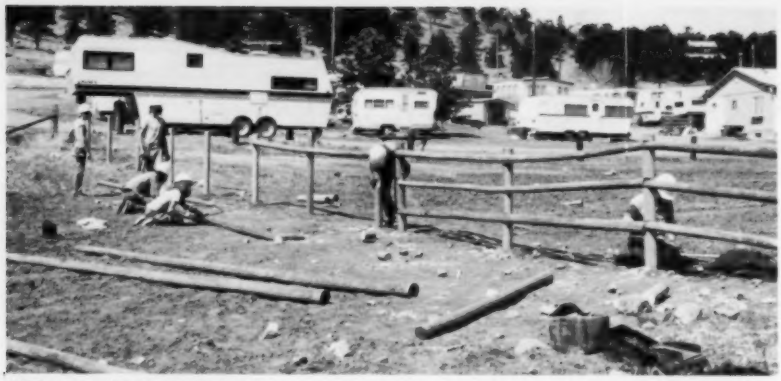
"I learned a lot about myself, about assuming responsibility and motivation. Working alongside other people in a group setting taught me skills for dealing with others, like how to assign jobs and supervise a project. What I enjoyed especially well about the program is that I made friendships that I will always have.

"I learned a variety of skills like working with concrete, carpentry, blueprint reading, and other construction type skills. I often wished that the program had more enrollees so that we all could concentrate on specific areas a little more. This would have made the program even better."

Roberta Ramzy was a Student Writer-Editor from The University of Denver, working in the Public Affairs Center, Denver, Colorado.

Photography by Jim Todd, Lower Missouri Region, Denver, Colorado; the staff and enrollees at the Loveland, Colorado, YACC camp.

In addition to learning construction-type skills, YACC members also participate in wildlife management, such as preparing a nesting box for wild geese.



YACC crew erecting a fence at Carter Lake.

YACC members prepare their own food, and lots of it.

The girls get much the same training as the guys, and vice versa.

A Loveland YACC crew working on a barbeque pit at Flatirons Park. The crew referred to this project as the "Elephant Trap."

Randy was a model enrollee whose motivation and work habits earned him a promotion from enrollee to crew leader. Randy says he has a dream of being a rancher. He believes YACC helped him develop maturity and left him with skills that will always be helpful.

Styled after the Civilian Conservation Corps (CCC) program of the 1930's, the YACC, one of the youth programs created under the Youth Employment and Demonstration Project Act (YEDPA), has unique service features and target populations for recruitment. Unlike its fellow youth employment programs — Job Corps, Youth Conservation Corps (YCC), Summer Youth Program, CETA, and others — YACC is not aimed primarily for the poor or socially disadvantaged.

YACC jobs are open to anyone between the ages of 16 and 23, who can meet the remaining entrance requirements established by the Federal Government. The YACC caters to a wide range of young people across the Nation who often find, among many personal benefits to self-development, the year of work with the Corps is the vital link they need to compete successfully against applicants in the general job market.

Jessie Shefferd, another graduate of the YACC program in Loveland, is an excellent example of how experience gained with YACC gives an edge in job competition. A high school graduate from Rawlins, Wyoming, before she started with YACC, Jessie worked as a processor in a company that manufactured artificial plants. Her primary job experience prior to this involved work in fast-food restaurants. Jessie learned about YACC through a high school teacher. In February 1979, Jessie, then 18 years of age, began her one-year tenure with the program.

Starting in a warehouse under the guidance of experienced workers, Jessie learned how to process receiving reports, purchase orders, requisitions, and other accounting skills. She comments upon the benefits of the program: "YACC gives you an incentive to work. It also helps you get along well with people. You have to get along or you won't make it. YACC was most helpful to me because the work experience gave me an edge in competing with other persons whose names came up on the Federal Job Register." Jessie is currently employed as a clerk/typist with the Water and Power Resources Service in Loveland. She says she plans a career in government work.

Hardest hit in the highly competitive employment arena are young adults between the ages of 16-24. In recent years, of the total population unemployed, young adults accounted for about one-half of the number. However, these young adults accounted for only one-fourth of the entire civilian labor force.

A number of factors contribute to the high rate of unemployment among this age group. Many young adults searching for jobs are recent entrants into the job market. They often begin their job searches without adequate skills, experience or education. Young adults are inclined to change jobs more frequently than the more mature worker. Additionally, changes in the business cycle of the Nation affect youth disproportionately. For example, during a cutback, young people lacking experience and tenure are laid off before other workers. With these concerns in mind, President Carter launched the Young Adult Conservation Corps (YACC) in August 1977 as an innovative youth employment program.

YACC is an important and useful program for providing much needed conservation work on State and Federal waterways, and in parks, forests and recreation areas. More than 800 project sites were selected to meet dual objectives: to provide immediate employment and to improve our environment. In an attempt to meet the employment objective, the federal government has stipulated that camp sites be selected primarily in areas of high youth unemployment. To improve the environment, projects include construction of recreational facilities such as picnic tables, fishing docks, and the like, and maintenance of existing structures such as fencing and erosion control.

YACC is a federally-funded program sponsored by the Departments of Agriculture and Interior, under an interagency agreement with the Department of Labor, which allocates the funds. The Employment and Training Administration's (ETA) Office of Youth Programs provides the program contact with other agencies for management and technical assistance. Recruiting participants is the joint effort of the Employment Ser-

All work and no play does not make a well-rounded education...YACC staff and members work at a well-rounded educational experience.

vice/Job Service (ES/JS) offices of the State Employment Agencies under the Comprehensive Employment and Training Act (CETA) as prime sponsors, and Agriculture and Interior as representatives. A number of YACC enrollees also perform conservation and related work for the Air Force.

Chester Robison, Youth Programs Manager for the Lower Missouri Region in Denver, comments upon the effects of recent budget cuts on the program: "The quality of the program has not been affected. However, the number of enrollees has been cut. This is unfortunate because the heart of the program is enrollees.

"Because of past performance and the relative efficiency of our program, we were not forced to close any of our camps. Efficiency is judged primarily by the return on dollars invested and the appraised value of work performed by the enrollees at a particular site."

Despite the demands for adjustments to the budget cuts, YACC graduates and administrators remain proud of the YACC program. Its benefits to the young searching for direction and purpose in life are easily recognizable and are worthy of praise. Its effectiveness would naturally gain it a high rating among youth programs.

Randy Fuller helps a Department of Wildlife research technician in food trial tests.

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